

Sum 2
4. A ferromagnetic ZnO-type compound, wherein a ZnO-type compound is added with at least one of

(1) at least one metallic element selected from a group consisting of transition metallic elements of V, Cr, Fe, Co, Ni, Rh or Ru,

(2) at least two metallic elements selected from a group consisting of said transition metallic elements, Ti, Mn and Cu, and

(3) either one of said (1) or (2), and at least one of an n-type dopant, and a p-type dopant

a1 Cont such that said ferromagnetic ZnO-type compound has a specific ferromagnetic transition temperature.

5. A ferromagnetic ZnO-type compound in which any one of (1) to (3) of claim 4 is added so that said ferromagnetic ZnO-type compound has a specific light-filtering characteristic.

6. A method for adjusting ferromagnetic characteristics of a ferromagnetic ZnO-type compound, wherein one of (1) to (3)

(1) at least one metallic element selected from a group consisting of transition metallic elements of V, Cr, Fe, Co, Ni, Rh or Ru,

(2) at least two metallic elements selected from a group consisting of said transition metallic elements, Ti, Mn and Cu, and

(3) either one of said (1) or (2), and at least one of an n-type dopant, and a p-type dopant

is added to said ZnO-type compound for adjusting ferromagnetic characteristics, said one of (1) to (3) being controlled by an amount of added elements, Ti, Mn, Cu or n-type dopant or p-type dopant or by a combination of said added elements.

7. The adjusting method of claim 6, wherein the ferromagnetic transition temperature is adjusted to a desired temperature by controlling at least one of said amount of said combination.

91 8. The adjusting method of claim 6, wherein the ferromagnetic state is stabilized by crystal-mixing at least two types of metallic elements as listed in said (2), so that the entire energy decreases by kinetic energy based on holes or electrons introduced by said crystal-mixing metallic elements themselves.

9. The adjusting method of claim 6, wherein the ferromagnetic state is stabilized by crystal-mixing at least two types of metallic elements as listed in said (2), so that a magnetic interaction between metallic atoms is controlled by holes or electrons introduced by said crystal-mixing metallic elements themselves.

10. The adjusting method of claim 6, wherein a ferromagnetic ZnO-type compound with desired light-filtering characteristics is obtained by crystal-mixing at least two types of metallic elements as listed in said (2), so that transmitting characteristics of light is controlled by holes or electrons introduced by said crystal-mixing metallic elements themselves.